Arc Ecology
833 Market Street, San Francisco California 94103
Phone 415.495.1786 Fax 415.495.1787 E-mail Arc@igc.apc.org

July 2, 1998

Richard Powell, Code 1832
Department of the Navy
Engineering Field Activity, West
Naval Facilities Engineering Command
900 Commodore Drive
San Bruno, CA 94066-5006

RE: Hunters Point Parcel F Draft Feasibility Study

Dear Mr. Powell:

Arc Ecology has reviewed the Parcel F Feasibility Study, Draft Report, dated April 3, 1998. This letter summarizes our areas of concern and makes recommendations for addressing them, where possible.

General Comments

1. Arc opposes the Navy's strategy to move Parcel F to the Feasibility Study stage without completing the Phase 1B Ecological Risk Assessment. We would have preferred that the draft Phase 1B Ecological Risk Assessment report be completed, with all agency comments incorporated, prior to publishing a draft FS. Although the Navy included a summary of agency comments and Navy responses in Appendix D, Arc does not feel that many of the important issues brought up by the agencies were adequately addressed or resolved in the FS. The quality of the Parcel F FS, consequently, suffers

2. Since Parcels E and F are ecologically linked and the Parcel E FS has been delayed until April 1999 to validate the ecological risk model, Arc Ecology recommends that the Parcel F FS also be delayed to coincide with the Parcel E schedule. Such a delay would also allow time to resolve several outstanding regulatory issues.

3. Arc recommends, if the Navy delays finalizing the draft FS, that each remediation area be examined to determine whether a removal action to control immediate threats may be warranted.

4. Since it is possible that funding for Parcel F remediation will not be received during one fiscal year, the Navy needs to prioritize each of the areas needing remediation, both for the high-volume and low-volume scenarios.

5. Arc finds chapters 1 through 3 of the FS to be unnecessarily confusing and complicated. We suggest that figures 3-1 and 3-2 (modified according to suggestions below) be introduced early in the document. Then, in subsequent sections, the Navy needs to explain how they derived the values used in the decision diamonds. Tables that show the chemicals of concern and cleanup levels invoked by each decision diamond need to be presented, where applicable.

6. Arc has serious reservations about use of the pile-supported area beneath former Pier A, the dry-docks, and berths as CDFs at Hunters Point Shipyard. It seems silly to move contaminated sediments from the relatively dirty side of the base to the clean side. Aside from that, the Navy does not seem to acknowledge in the FS that CDFs need to be designed and managed as active sources of pollution. The Navy seems to ignoring, in particular, the possibility that the CDFs made from repaired old dry-docks and berths might leak substantial quantities of contaminated porewater into the bay. Water can leave the basins by either seepage through the walls of the structure or by leaching into the underlying soil. These potential discharges must be acknowledged and cost estimates developed to control them.

Arc recommends that an additional remedial alternative be explored wherein dredged material is used to support creation of a wetlands at Parcel E or disposed of at the 1/21 landfill. Note that figure 3-6 shows on-site disposal at the landfill as a retained remedial technology, but it is not used in any of the alternatives.

Specific Comments

1. Please correct the reference used to determine a 13 ug/kg TBT screening level. It should be PRC 1994a. Was PRC 1994b used in the FS analysis? If so, it should be included in Appendix B.

2. Please provide a table that lists all chemicals of concern along with their high-volume and low-volume cleanup levels.

3. Please provide a table that lists results of the sediment and pore water toxicity tests by station. For example:

Station Number	Sediment - Amphipod Survival	Pore Water -- S. Purpuratus Percent Normal Development	Station used in high-volume or low volume scenario
TAST03	62	3	
TBST01	77	1	
TCST01	80	81	
TCST05	61	0	
TDST01	87	7	

TDST03	60	2	HV
TDST04	78	1	
TEST03	80	91	LV HV
TFST01	69	1	LV HV
TGST03	79	0	
TIST01	64	0	
TLST03	84	0	
TMST01	85	0	
T0ST03	78	1	
TPST01	79	0	
TQST01	91	0	
TRST01	88	0	
TSST03	84	1	
TTST01	64	0	
TUST03	85	95	HV
TVST01	83	1	HV
TWST03	73	1	HV
TXST01	87	97	LV HV
TXST02	79	57	LV HV
TXST03	77	90	LV HV
TXST05	73	93	
TYST01	65	94	
TYST02	73	6	
TYST03	77	2	LV HV
TYST04	76	48	
TZST01	83	98	
TXST03	85	90	
TAAST01	95	1	
TAAST02	75	91	
TBBST03	75	46	
SIST01	67	39	LV HV
S2ST01	93	92	LV HV

Sources: sediments, Table 9-1 Phase 1B ERA; pore water Table 1-1, Appendix E, Parcel F FS.

3. TPH seems to have been ignored as a chemical of concern in the FS. Why? TPH needs to be considered a chemical of concern, with specified screening/cleanup levels, for Parcel F.

4. The Navy needs to better justify why Area XI was excluded from RAO evaluation. Arc opposes this area being dropped from RAO evaluation. We recognize that some of the contamination may be attributable to off-site factors. However, we believe the Navy retains responsibility for addressing contamination on its property. If cost to remediate sediments not contaminated by the Navy are the concern, the Navy should pursue cost-recovery from the other potentially responsible parties.

5. We disagree with the statement on page 2-25 that use of ER-L values in the screening evaluation would overestimate the effect of HPS facility operations on the sediment quality at Parcel F. According to the FS (page 2-25) ER-L values were abandoned because many are below Bay ambient values. In fact, some of the most important chemicals of concern at Parcel F have ER-Ls that are above bay ambient values, including lead, silver, low molecular weight PAHs, and PCBs. The Navy should use ER-L or ambient values, whichever is higher, for the screening evaluation. This would better show relative risk associated with Parcel F sediments.

The Navy's substitute procedure (using ER-Ms) underestimates the effects. ER-Ms are only suitable for hot-spot screening. Using ER-Ls or ambient levels (whichever is higher) also is consistent with the Navy's onshore screening approach. In practice the maps in Appendix A show both ambient and ER-M hazard quotients and the high-volume decision flow doesn't use ER-Ms, so perhaps the point is mute. Nonetheless, if the Navy intends the screening evaluation and the Appendix A maps to show relative risks, not hot spots, then the Navy needs to use ER-Ls. Alternatively, the Navy could change the intention of the screening evaluation.

6. Section 2.4.2 is unintelligible. Does the Navy really mean to say that tissue sample results were inconclusive because laboratory analysis was faulty and that, therefore, there is no bioaccumulation problem at Parcel F?

7. Please reference the source of information the Navy used to conclude in Section 2.4.5.2 through 2.4.5.4 that risks to fish, birds, and marine mammals are marginal.

8. The Navy set forth in the Phase 1B Ecological Risk Assessment Workplan that for this project, biological significance will be defined as that value with 20 percent or more mortality than the reference mean. This decision was made prior to running the bioassay tests on reference sediments. It turns out that reference samples showed only a 75% survival rate. The Phase 1B ERA states that a survival rate of 76% or less indicates toxicity. The Phase 1B Ecological Risk Assessment stated explicitly that reference locations for Hunters Point indicated toxicity and therefore were not used. Yet in this FS, the Navy took the 75% reference site survival rate and adjusted it by 20% to create a site-specific toxicity threshold of 60% survival. In other words, the Navy states that less than 60 percent survival represents toxicity. This is much too low. The Navy should stick to using a survival rate of 76% or less to indicate toxicity.

9. Figures 3-1 and 3-2, the decision flow diagrams, are very helpful. They would be even more useful with some modifications.

- Show what data are input into the decision flow.

- Show where "other considerations" would enter the decision flow.

- Provide tables keyed to each of the decision diamonds that show contamination levels for the chemicals of concern.

- The last decision rule (S.P./P.W. Bioassays greater than 80% of references) is confusing. From looking at the remediation areas proposed on figure 3-3 and 3-4 it does not appear that this decision rule was actually used. If not, it makes sense to remove this decision diamond from the figures.

- Change the last decision rule On figure 3-2 only, resolve the "no" line coming out of the "area of accretion" diamond.

10. Page 5-20 states that CDFs would be constructed in areas that are depositional. Yet it appears from figure 2-4 that the Pier A area is erosional.

11. Table A-1 contains several errors.

- TBT screening level is reported as 13 mg/kg. It should be 13 ug/kg. The ambient/ER-L ratio also needs to be adjusted to 0.037 from 37.

- A cite needs to be provided for the *.

- Why was the Puget Sound high sediment screening value for TBT used as a surrogate for the ER-L? The Navy should have used the TBT low screening value of 25.1 ug/kg.

- The EPA 1997 reference is incorrect. The correct reference is *U.S.EPA. 1996. Recommendations for Screening Values for Tributyltin in Sediments at Superfund Sites in Puget Sound, Washington. DCN 4000-09-013-AADS, 13-01-AADK, and 33-01-AAAV. Prepared by Roy F. Weston, Inc., Seattle, Washington. Prepared for U.S. Environmental Protection Agency Superfund Program, Region X, Seattle, Washington.*

12. Section 2.3.3.3 should refer to the maps and tables in Appendix A.

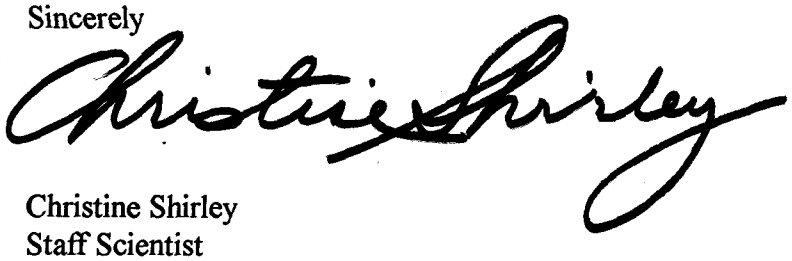
13. With respect to TBT, paragraph 1 on page 2-27 contradicts paragraph 1 on page 2-31. At least sample TXST01 is above the EPA screening value of 381 for TBT.

14. Where did the EPA screening value of 381 ug/kg value come from? We could not locate this value in the cited references.

15. Did the reference locations undergo supplementary data validation (appendix E)?

Thank you for giving us the opportunity to make these comments. If you have any questions regarding them please call me at 415-495-1786.

Sincerely



Christine Shirley
Staff Scientist

Cc: Michael McClelland, US Navy
Sheryl Lauth, USEPA
Valerie Heusinkveld, Cal-EPA
Amy Brownell, San Francisco Health Department
Mayor Willie Brown
SF Board of Supervisors
SF Redevelopment Agency
Claude Wilson, SAEJ
Clean Waterfront Coalition

ARC ECOLOGY
833 Market St., Suite 1107
San Francisco, CA 94103
Tel. (415) 495-1786
Fax (415) 495-1787

★ ★ ★ UNITED STATES POSTAGE
156
1640 $00.55
4213 SAN FRANCISCO CA

Mr. Richard Powell
Code 1832
Department of the Navy
Engineering Field Activity West
900 Commodore Drive
San Bruno, Ca 94066-5006